

Recovery Plan Action Status

Plan Name: Little Aguja Pondweed

Plan Status: Final

Plan Date: 20-Jun-94

Lead Agency: USFWS

Lead Office: Austin Ecological Services Field Office

(512)
490-0057)

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Little Aguja (=Creek) Pondweed (Potamogeton clystocarpus)	1	1	Establish a cooperative relationship with area landowners that will allow surveys and conservation activities to proceed	Ongoing Current	FY 1995 - FY 1999		U.S. Fish and Wildlife Service, Ecological Services Division, Texas Department of Parks and Wildlife, USFWS Regional Office 2	Other: Information and Education	Internal Administrative, Internal Field Assistance, Internal Technical Assistance	Necessary for all other tasks. ES costs = 1K/year. TPWD costs = 0.5K/year.
Little Aguja (=Creek) Pondweed (Potamogeton clystocarpus)	1	2.1	Search Little Aguja Creek annually for at least 7-10 years, then every other year for at least 6 additional years, depending on regional weather condition, and finally, conduct 2 additional surveys at 3 year intervals	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Texas Department of Parks and Wildlife, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	One year completed necessary to tasks 3.1, 3.2, 3.4, 3.5, 4.1, all site based research studies, task 3.3, and task 6. ES costs = 2.5K/year. TPWD costs = 1K/year.
Little Aguja (=Creek) Pondweed (Potamogeton clystocarpus)	1	2.2	Conduct a rigorous survey of adjacent watersheds every other year for at least 7 years	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Texas Department of Parks and Wildlife, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	Necessary to tasks 3.1, 3.2, 3.4, 3.5, 4.1, all site based research studies, task 3.3, and task 6. ES costs: FY1&FY3=4K, TPWD costs: FY1&FY3=1K.
Little Aguja (=Creek) Pondweed (Potamogeton clystocarpus)	1	3.1	Immediately protect populations located from any obvious, manageable threats	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Texas Department of Parks and Wildlife, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	Depends on threats identified. ES costs: FY1 = 5K, FY2 = 1K. TPWD costs = 1K/year.
Little Aguja (=Creek) Pondweed (Potamogeton clystocarpus)	1	3.2	Conduct site evaluation and develop and implement short-term management plans	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Texas Department of Parks and Wildlife, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	ES costs: FY1 = 3K, FY2 = 2K. TPWD = 1K/year for FY1&FY2.

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Little Aguja (=Creek) Pondweed (Potamogeton clystocarpus)	2	3.3	Develop and implement a long-term management plan for each site located	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Texas Department of Parks and Wildlife, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	Dependent on research results. Helpful to tasks 3.1, 3.4, and 3.5.
Little Aguja (=Creek) Pondweed (Potamogeton clystocarpus)	1	3.4	Monitor populations	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Texas Department of Parks and Wildlife, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	Necessary to tasks 3.1, 3.2, 5.71, 5.731, 3.3, 5.41, and 6. Helpful to task 5.2. ES costs = 4K/year. TPWD costs = 1K/year.
Little Aguja (=Creek) Pondweed (Potamogeton clystocarpus)	1	3.5	Ensure knowledge of and compliance with applicable Federal and State laws and regulations	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Texas Department of Parks and Wildlife, U.S. Fish and Wildlife Service, Law Enforcement Division, USFWS Regional Office 2	Other: Information and Education, Other: Regulations	Internal Administrative, Internal Technical Assistance	ES costs = 1K/year. LE costs = 1K/year. TPWD costs = 1K/year.
Little Aguja (=Creek) Pondweed (Potamogeton clystocarpus)	1	4.1	Establish an off-site cultivated collection/seed bank with maximum genetic diversity	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Texas Department of Parks and Wildlife, Center for Plant Conservation, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	Necessary to tasks 3.1, 3.3, 5.61, 5.62, 5.63, 5.72, 5.731, and 6. Helpful to tasks 5.11, 5.12, 5.2, 5.5, 5.42, 5.43, 5.5, 7. CPC costs = 2K/year. ES costs: FY1&2 = 4K/year, FY3 = 1K. TPWD costs: FY1&2 = 1K/year, FY3 = 0.5K.
Little Aguja (=Creek) Pondweed (Potamogeton clystocarpus)	2	4.2	Establish a monitoring and management plan for the cultivated collection	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Texas Department of Parks and Wildlife, Center for Plant Conservation, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	Necessary to task 4.1. CPC costs = 0.5K, ES costs = 0.5K, TPWD costs = 0.5K.

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Little Aguja (=Creek) Pondweed (Potamogeton clystocarpus)	2	4.3	Coordinate the conservation collection program with research efforts	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Texas Department of Parks and Wildlife, Center for Plant Conservation, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	Necessary to task 4.1,. Helpful to tasks 5.61, 5.62, 5.63, 5.72, 5.731, and 5.732. CPC costs = 0.5K, ES costs = 0.5K, TPWD costs = 0.5K.
Little Aguja (=Creek) Pondweed (Potamogeton clystocarpus)	1	5.11	study flow level and flow rate requirements	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Texas Department of Parks and Wildlife, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	Initiate after initial surveys. Necessary to tasks 3.1, 3.3, 3.4, 3.5, 4.1, 6. Helpful to tasks 5.41, 5.44, 5.62, and 5.732. ES costs = FY2&3=8K/year. TPWD costs = FY2&3=2K/year.
Little Aguja (=Creek) Pondweed (Potamogeton clystocarpus)	1	5.12	Study hydrochemical profiles and water quality requirements	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Texas Department of Parks and Wildlife, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	Established government agency aquatic plant research labs are potential cooperators. Necessary to tasks 3.1, 3.3, 3.4, 3.5, 4.1. Helpful to tasks 5.44, 5.62, 5.63. ES costs: FY2&3=7K/year. TPWD costs: FY2&3=1.5K/year.
Little Aguja (=Creek) Pondweed (Potamogeton clystocarpus)	2	5.2	Determine other factors limiting growth or reproduction in the natural environment	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Texas Department of Parks and Wildlife, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	Necessary to tasks 3.1 and 3.3. Helpful to tasks 3.4, 3.5, 5.44, 5.62 and 6. ES costs = 6K, TPWD costs = 2K.
Little Aguja (=Creek) Pondweed (Potamogeton clystocarpus)	1	5.3	Study community structure	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Texas Department of Parks and Wildlife, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	Necessary to tasks 2.1, 2.2, 3.3, 3.4, 3.5, 5.41, 5.44, and 6. ES costs: FY2&3=5K/year. TPWD costs: FY2&3=1K/year.

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Little Aguja (=Creek) Pondweed (Potamogeton clystocarpus)	2	5.41	Study seasonal and cyclic phenomena	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Texas Department of Parks and Wildlife, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	Necessary for tasks 3.1, 3.3, 3.4, 3.5, and 5.2. Helpful to tasks 5.43, 5.44, and 5.71. ES costs = 5K, TPWD costs = 1K.
Little Aguja (=Creek) Pondweed (Potamogeton clystocarpus)	2	5.42	Study positive and negative interactions with other species	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Texas Department of Parks and Wildlife, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	Necessary to tasks 3.1, 3.3, 3.4, 3.5, 5.5, and 5.732. Helpful to tasks 5.2, 5.44, 5.62, and 6. ES costs = 6K, TPWD = 2K.
Little Aguja (=Creek) Pondweed (Potamogeton clystocarpus)	2	5.43	Investigate the role of the seed bank	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Texas Department of Parks and Wildlife, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	Should wait until seed biology work is done necessary to tasks 3.1, 3.3, 3.5, and 5.732. Helpful to task 5.2 and 5.44.
Little Aguja (=Creek) Pondweed (Potamogeton clystocarpus)	1	5.44	Study response to disturbance and management activities	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Texas Department of Parks and Wildlife, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	Initiate after initial surveys and habitat work are done. Necessary to tasks 3.1, 3.3, 3.4, 3.5, and 6. Helpful to task 5.2. ES costs = 6K, TPWD costs = 2K.
Little Aguja (=Creek) Pondweed (Potamogeton clystocarpus)	1	5.5	Characterize the phenology and identify most vulnerable phases of the life cycle	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Texas Department of Parks and Wildlife, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	Necessary to tasks 3.1, 3.3, 3.4, 3.5, 4.1, and 6. Helpful to tasks 5.2, 5.42, and 5.44. ES costs = 6.5K/year. TPWD costs = 2K/year.
Little Aguja (=Creek) Pondweed (Potamogeton clystocarpus)	1	5.61	Study seed biology	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Texas Department of Parks and Wildlife, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	Initiate after initial surveys. Necessary to tasks 3.3, 3.4, 3.5, 4.1, and 5.43. Helpful to tasks 5.2, 5.44, and 5.732. ES costs: FY2&3=2K/year. TPWD costs: FY2&3=0.5K/year.

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Little Aguja (=Creek) Pondweed (Potamogeton clystocarpus)	1	5.62	Study the biology of seedlings, vegetative fragments, or other propagules	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Texas Department of Parks and Wildlife, Center for Plant Conservation, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	Initiate after initial surveys. Necessary to tasks 3.1, 3.3, 3.4, 3.5, 5.2, and 6. Helpful to task 5.42, 5.43, 5.44, 5.63, 5.71, 5.731, and 5.732. CPC costs: FY2&3=1K/year. ES costs: FY2&3=4K/year. TPWD costs: FY2&3=1K/year.
Little Aguja (=Creek) Pondweed (Potamogeton clystocarpus)	1	5.63	Investigate propagative techniques	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Texas Department of Parks and Wildlife, Center for Plant Conservation, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	Would initiate as soon as plants are located. Necessary to tasks 4.1, 5.12, 5.2, 5.44, 5.62, 5.731, and 5.732. CPC costs: FY2&3=0.5K/year. ES costs: FY2&3=3.5K/year. TPWD costs: FY2&3=0.5K/year.
Little Aguja (=Creek) Pondweed (Potamogeton clystocarpus)	1	5.71	Evaluate demographic conditions, determine requirements for long-term survival, and present options and recommendations	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Texas Department of Parks and Wildlife, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	Initiate after initial surveys. Necessary to tasks 3.1, 3.3, 3.4, 3.5, 5.44, and 6. Helpful to tasks 5.2, 5.43, and 5.62. ES costs: FY3=5K, TPWD costs: FY3=1K.
Little Aguja (=Creek) Pondweed (Potamogeton clystocarpus)	1	5.72	Evaluate present genetic variability and viability, determine requirements for viability, and present options and recommendations	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Texas Department of Parks and Wildlife, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	Initiate after preliminary population evaluations. Necessary to 3.3, 3.4, 3.5, 4.1, and 5.2. ES costs: FY3=5K, TPWD costs: FY3=1K.
Little Aguja (=Creek) Pondweed (Potamogeton clystocarpus)	1	5.731	Determine types of reproduction and contribution to populations	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Texas Department of Parks and Wildlife, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	Coordinate with task 5.732 necessary to task 3.1, 3.3, 3.4, 3.5, 4.2, 5.12, 5.2, and 5.42. ES costs: FY2&3=6K/year. TPWD costs: FY2&3=2K/year.

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Little Aguja (=Creek) Pondweed (Potamogeton clystocarpus)	1	5.732	Study dispersal and establishment mechanisms	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Texas Department of Parks and Wildlife, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	Coordinate with tasks 5.731 and 5.62. Necessary to tasks 3.1, 3.3, 3.4, 3.5, and 5.2. Helpful to tasks 4.1, 5.41, 5.42, 5.43, 5.44, 5.5, and 5.62. ES costs: FY3=6K, TPWD costs: FY3=2K.
Little Aguja (=Creek) Pondweed (Potamogeton clystocarpus)	3	6	Evaluate the potential for full recovery and develop recovery criteria if appropriate	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Texas Department of Parks and Wildlife, USFWS Regional Office 2	Management: Planning	Internal Technical Assistance, Species Expert	Cannot initiate prior to completion of survey work
Little Aguja (=Creek) Pondweed (Potamogeton clystocarpus)	2	7	Develop public awareness about the concern for Potamogeton clystocarpus and the need for continued efforts to preserve and study it	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Texas Department of Parks and Wildlife, Center for Plant Conservation, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	ES costs: FY1&2 = 3K, FY3 = 0.5K. TPWD costs: FY1&2 = 1K, FY3 = 0.5K.